UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,263	12/18/2000	Keith Barraclough	8X8S.223PA	5757

40581 7590 03/29/2010
CRAWFORD MAUNU PLLC
1150 NORTHLAND DRIVE, SUITE 100
ST. PAUL, MN 55120

EXAMINER	
VAN HANDEL, MICHAEL P	
ART UNIT	PAPER NUMBER
2424	
MAIL DATE	DELIVERY MODE
03/29/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/740,263
Filing Date: December 18, 2000
Appellant(s): BARRACLOUGH ET AL.

Robert J. Crawford
Eric J. Curtin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 29, 2009 appealing from the Office action mailed August 12, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

The examiner notes that this application was previously appealed and decided by the BPAI on September 29, 2008.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2005/0251827	Ellis et al.	11-2005
5,410,326	Goldstein	4-1995
6,611,537	Edens et al.	8-2003
4,837,798	Cohen et al.	6-1989
5,835,126	Lewis	11-1998
6,526,581	Edson	2-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims **3**, **5** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Referring to claim **3**, the examiner fails to find support in Applicant's specification for performing a non-frequency-based reconfiguration of external services data, as currently claimed. Applicant's specification states throughout that external services data is converted from a packet-based bus to various channels of a user-based bus; however, the examiner fails to find any recitation of performing a non-frequency-based reconfiguration of external services data, as currently claimed.

Referring to claim **5**, the examiner fails to find support in Applicant's specification for the bussing arrangement in the user facility to be a packet-based bussing arrangement that communicates data to different devices on overlapping frequencies, and wherein the stored external services data is communicated on the bussing arrangement in a packetized format including a packet header that identifies a destination packet-based address to which the stored external services data is to be sent, as currently claimed. As noted with respect to claim 3 above, Applicant's specification states throughout that external services data is converted from a packet-based bus to various channels of a user-based bus; however, the examiner fails to find any recitation of the bussing arrangement in the user facility being a packet-based bussing arrangement that communicates data in packetized format including a packet header that identifies a destination packet-based address to which the stored external services data is to be sent, or that this arrangement communicates data to different devices on overlapping frequencies, as currently claimed.

2. Claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al.

Regarding claim **1**, the claimed closed-loop media storage and playback circuit arrangement for processing media-based external-services data for a user facility that provides media and telephony-related services to its users is met as follows:

- The claimed closed-loop audio, video, and data signal bussing arrangement adapted to distribute audio, video, and data to designated points in the user facility is met by the communication bus 36, which serves to receive information from

external services and communicate the information to the network [col. 3, lines 3-12].

- The claimed plurality of telephony-based appliances communicatively coupled to the bussing arrangement, wherein the plurality of appliances provide bi-directional telephony services using at least one of: audio, video, and data signals is met by the plurality of interface pods 44, which can interface a plurality of appliances [col. 3, lines 13-18; Col 1, Lined 10-25; Col 1, Lines 33-40; Col 2, line 58-Col 3, Line 2; Col 7, Lines 9-20].
- The claimed "media storage and playback device including at least one data memory circuit adapted to store external services data and adapted to store configuration data" is only partially met by the Hamlin reference. Hamlin teaches system database storage 48 within the system controller that holds information on the status of the distribution system 10. The database 48 stores information that is useful in configuring and controlling the system [col. 4, lines 16-27]. The Hamlin reference does not teach that external services data can be stored in a data memory circuit. The Ellis reference cures this deficiency in teaching a server 80, as the primary device in the home [Fig. 5 and paragraph 0074]. The server, as taught with reference to a separate embodiment, handles data distribution tasks and stores local information. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention

to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

- The claimed programmable network interface unit (NIU) adapted to store media-based external services data in the memory circuit and to communicatively couple the stored external services data from the memory circuit to the plurality of appliances in the user facility via the bussing arrangement as a function of the configuration data in the memory circuit is met by converter 34, which serves to receive the external services data and send it to the bussing arrangement [col. 3, lines 3-13]. As noted above, the Hamlin reference does not discuss that the external services data can be stored on the converter. The Ellis reference, however, does teach that the in-home server 80 can store and serve video to users throughout the home via a bussing arrangement [paragraphs 0062 and 0074]. The configuration data stored in the system database storage 48, as discussed above, is used and taught by the Hamlin reference to monitor and control activity throughout the home [col. 4, lines 16-27]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

- The claimed remote-control user input device adapted to communicate with the NIU, in response to user inputs received at the remote user input device, to access the data stored in the memory circuit, program the programmable NIU by providing the configuration data to the NIU and command the NIU by communicating command signals via the closed-loop bussing arrangement to configure the external-services data for use at a particular one of the plurality of appliances in the user facility, based upon capabilities of the particular one of the appliances, and to control the NIU to communicate the configured external-services data to the particular one of the plurality of appliances is met by the remote controller 42, which allows for input of programming and use information [col. 5, lines 34-45]. Furthermore, in the client-server architecture as taught by the Ellis reference, a data input device 140 or remote control 54 [Fig. 10] can be used to request information stored at the server for display at the user device [paragraphs 0085-0065].

Regarding claim **2**, the claimed user input device including one of the plurality of appliances, and wherein the NIU configures the external-services data by changing the data into a different processor-readable format required by the particular one of the plurality of appliances for processing such data is met by the remote controller's 42 ability to control directly or indirectly the system controller 38 [col. 5, lines 34-45] and the protocol conversion and/or demodulation necessary at converter 34 to produce signals in a common format [col. 3, lines 24-37].

Regarding claim **4**, the claimed NIU is programmed to configure the external-services data into a different processing format for use by processing circuit in a particular type of end device in response to the command signals, and further to configure the external-services data into a different communications format for communicating the data to the particular end device is met by converter 34, which receives different types of signals and performs protocol conversion and/or demodulation as necessary to produce signals in a common format, but at different frequencies, which are then received and converted by an interface pod 44 [col. 3, lines 24-37 & col. 4, lines 34-50].

Regarding claim **6**, the claimed user input device including a television remote adapted to select NIU commands from a display generated by the NIU and displayed on the television is met by the system controller 38 and the remote controller 42 of the system controller, which has a human input device 55 and a display device 45 for configuring the reception and configuration of the system [col. 3, lines 59-65 & col. 5, lines 34-45].

Regarding claim **8**, the claimed NIU being further adapted to configure the external services data for use at a particular one of the plurality of appliances is met by the converter 34, which converts the mass media signals into a signal that is transmitted along a communication bus 36 for delivery to an interface pod 44 and converted for playback on the appropriate device [col. 3, lines 3-23].

Regarding claim **9**, the claimed external services data including audio and video data, wherein the NIU is adapted to configure the audio data for use at an audio appliance and to configure the video data for use at a video appliance is met by the mass media signals, such as video, audio, and various other types of electronic mass media information [col. 1, lines 47-52]

being delivered to the home, converted, sent to the communication bus and utilized according to the format type on a audio appliance or video appliance.

Regarding claim **10**, the claimed arrangement for processing external-services data for use in a user facility, according to claim 1, wherein the NIU includes the data memory circuit is not met fully by the Hamlin reference. While Hamlin does teach that the system controller contains system database storage 48 for storing configuration information, he does not teach that the external-services data can be stored at the converter/controller. The Ellis reference cures this deficiency in teaching a server 80, as the primary device in the home [Fig. 5 and paragraph 0074]. The server, as taught with reference to a separate embodiment, handles data distribution tasks and stores local information. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

Regarding claim **11**, the claimed NIU being adapted to store incoming external services data at the data memory circuit until a routing command is received from the user input device, and to route the external services data directly from the data memory circuit in response to the received routing command is met by remote controller 42, which allows for input of programming and use information [col. 5, lines 34-45]. Furthermore, in the client-server architecture as taught by the Ellis reference, a data input device 140 or remote control 54 [Fig.

10] can be used to request information stored at the server for display at the user device [paragraphs 0085-0086]. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale, in which users can utilize the input devices to request stored information, much like is done in a video on demand system which is commonplace in the art.

Regarding claim **12**, the claimed user input device being adapted to communicate with the NIU and determine the type of external-services data that is stored is met by the remote controller 42, which allows for input of programming and use information [col. 5, lines 34-45]. Furthermore, in the client-server architecture as taught by the Ellis reference, a data input device 140 or remote control 54 [Fig. 10] can be used to request information stored at the server for display at the user device [paragraphs 0085-0086]. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale, in which users can utilize the

input devices to request stored information, much like is done in a video on demand system which is commonplace in the art.

Regarding claim **13**, the claimed user input device being adapted to determine the source of the external-services data is met by the system database storage 48, within the system controller 38, which serves to store information on the incoming signal and it's frequency and source [col. 4, lines 16-29].

Regarding claim **14**, the claimed NIU being adapted to store configuration information in the data memory circuit, wherein the configuration information includes routing information for external services data, again, is met by the RAM, ROM, and system database storage, which serve to store information about incoming signals and therefore, properly route the signals along the communication bus to the appropriate devices [col. 3, line 59 – col. 4, line 33].

Regarding claim **15**, the claimed external-services data including data having a first data form, wherein the NIU is adapted to convert the external services data into a second data form for use by a particular one of the plurality of appliances is met by converter 34, which serves to convert from the input media signal into a media signal that the interface pods 44 can utilize and output to the device [col. 3, lines 3-23].

Regarding claim **16**, the claimed first data form including packet-based data, and the second data form including non-packet-based data is met by the converter 34 being able to convert from mass media signals or internet signals to a signal that is communicated on the communication bus 36.

Regarding claim **21**, the claimed plurality of appliances including a TV, wherein the NIU is adapted to display the configuration of the plurality of appliances on the TV screen is met by

the system controller 38, which is one of the plurality of appliances and contains a display device 45 for display of the configuration and user operation therewith [col. 3, lines 59-65].

Regarding claim **23**, the claimed user input device being adapted to command the NIU based upon the configuration display on the TV screen is met by the control of the system by the human input device 55 via the display device 45 of system controller 38.

Regarding claim **24**, the claimed one of the plurality of appliances including a display, wherein the NIU is adapted to display the stored incoming external services data on the display is met by the inclusion of the television in the network, which can be directed by the system controller 38 to display information from the system database storage 48, such as data from the external services [col. 4, lines 16-33].

Regarding claim **25**, the claimed user input device being adapted to command the NIU based upon the displayed incoming external services data is, again, met by the inclusion of the television in the network, which can be directed by the system controller 38 to display information from the system database storage 48, such as data from the external services [col. 4, lines 16-33].

Regarding claim **26**, the claimed NIU being adapted to display email, audio messages, and video messages, and wherein the user input device is adapted to respond to an input corresponding to the displayed information and to command the NIU to route the displayed information to a particular one of the plurality of appliances is met by the ability of the system to follow user input to provide programming information to the appropriate appliance through user prompts and selections [col. 5, lines 34-48].

Regarding claim **27**, the claimed digital memory circuit coupled to the NIU, wherein the external services data is digital data and is stored in the digital memory circuit is, again, met by converter 34, which serves to receive the external services data and send it to the bussing arrangement [col. 3, lines 3-13]. As noted above, the Hamlin reference does not discuss that the external services data can be stored on the converter. The Ellis reference, however, does teach that the in-home server 80 can store and serve video to users throughout the home via a bussing arrangement [paragraphs 0062 and 0074]. The configuration data stored in the system database storage 48, as discussed above, is used and taught by the Hamlin reference to monitor and control activity throughout the home [col. 4, lines 16-27]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

Regarding claim **28**, the claimed external services data being stored at a location external from the NIU, within the user facility is met by the ability to store the data at a user device VCR as taught by the user routing the signal from the converter to the other VCR for recording [col. 5, lines 46-60].

Regarding claim **30**, the claimed user input device being coupled to the bussing arrangement and using the bussing arrangement to command the NIU is met by the system controller 38, which is one of the devices on the bussing arrangement and is used to control converter 34.

Regarding claim **32**, the claimed user input device being adapted to send control signals to the NIU that are configured to enable the control of external-data services including at least one of: caller ID information, address book information, pay-per-view access information, downloadable multimedia information, dynamically allocable telephone numbers, call forwarding, message on hold, directory assistance, and household systems control information is met by the discussion of the downloading of stock information, which is downloadable multimedia information through the NIU [col. 6, line 66 – col. 7, line 8].

Regarding claim **33**, the claimed NIU including a printed circuit board (PCB) having at least one general processor and at least one specific processor adapted to process video data is met by the discussion of the converter and the extension boards that can be purchased to process more data [col. 7, lines 21-24].

Regarding claim **34**, the claimed PCB including a RISC processor is, again, met by the discussion in column 7, lines 21-24. The inclusion of a RISC processor, while commonly known in the art, is not a patentable distinction over claim 33, and is therefore rejected on the same grounds.

Regarding claim **35**, the claimed PCB including a DSP processor is, again, met by the discussion in column 7, lines 21-24. The inclusion of a DSP processor, while commonly known in the art, is not a patentable distinction over claim 33, and is therefore rejected on the same grounds.

Regarding claim **36**, the claimed each of the plurality of appliances being adapted to deliver status information signals to the NIU including the status of the appliance sending the signal, further comprising a user interface device adapted to access and provide the status

information to a user is met by the system database storage 48, which has the ability to monitor the status of the interface pods and devices on the network by monitoring the activity at each location [col. 4, lines 16-27].

Regarding claim **42**, the claimed appliance interface device coupled to an appliance and to the bussing arrangement and adapted to receive a first type of signal and convert the data signal to a second type of data signal is met by the interface pods 44, which serve to couple the appliance to the bussing arrangement and convert the signal carried on the communication bus to a signal that is intelligible by the appliance [col. 4, lines 28-51].

Regarding claim **43**, the claimed appliance interface device being further adapted to receive a signal via a first type of communications line and to transmit the signal via a second type of communications line is met by the converter within the interface pods 44, which can receive information from the communication bus and transmit it via a wireless link or analog link [col. 4, lines 28-51].

Regarding claim **44**, the claimed appliance interface device being programmable via a user input is met by the system controller 38, and it's ability to program and control the NIUs and the interface pods.

Regarding claim **45**, the claimed appliance interface device being programmable by an external-services provider via the NIU is met by the system database storage 48, which can store information sent in through the NIUs and use the information to program and utilize the interface pods.

Regarding claim **46**, the claimed network interface system for interfacing different types of communication systems including a first user-based telephone communication system within a user facility and a packet-based communication system is met as follows:

- The claimed data memory circuit adapted to store configuration data and packet-based data from the packet-based communication system is only partially met by the Hamlin reference. Hamlin teaches system database storage 48 within the system controller that holds information on the status of the distribution system 10. The database 48 stores information that is useful in configuring and controlling the system [col. 4, lines 16-27]. The Hamlin reference does not teach that external services data can be stored in a data memory circuit. The Ellis reference cures this deficiency in teaching a server 80, as the primary device in the home [Fig. 5 and paragraph 0074]. The server, as taught with reference to a separate embodiment, handles data distribution tasks and stores local information. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

- The claimed telephony-based user communication device is met by the system controller 38 and remote controller 42, used to communicate with the system.
- The claimed processor arrangement adapted to write configuration data into and read configuration data from the memory circuit and to provide data for presenting configuration information for accessing at the telephony-based user communication device, further adapted to process data received from, and exchange processed data between, the first user-based communication system and the packet-based communication system, and, in response to the configuration data, also adapted to route both selected information provided by the packet-based communication system and data stored at the data memory circuit to selected channels of the first user-based telephone communication system by configuring at least some of the data routed into a processor-readable format that is amenable to access by a telephony-based appliance connected to the user-based telephone communication system is met by the system controller 38 in conjunction with the converter 34 and the interface pods 44, which all serve to exchange processed data between the communication bus 36 and the external mass media providers. In the case of the Ellis reference, the input device 140 or the remote control 54 can be used to request information from the stored information at the server [paragraphs 0085-0086]. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention

to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale, in which users can utilize the input devices to request stored information, much like is done in a video on demand system which is commonplace in the art.

- The claimed user input means for inputting configuration-defining control signals, wherein the processor arrangement responds to the configuration-defining control signals by changing the configuration data in the memory circuit and by rerouting selected information provided by the packet-based communication system to selected channels of the first user-based communication system according to the configuration-defining control signals is met by the human input device 55 and/or remote controller 42 for controlling the system controller 38, in an attempt to configure and re-route data according to the appliance and interface pod that the data will be viewable on.

Regarding claim **47**, the claimed network system coupled to the first user-based communications system is met by communication bus 36, which couples the network together.

Regarding claim **48**, the claimed user input means including at least one of: an IR key panel, a wall-mount unit for the system, a TV, a telephone, a computer, a videophone, a videocassette recorder, a wireless phone, a remote control, a modem, a voice recognition system, an Internet access device, a keypad, and a touch screen is met by the human input device 55 and/or remote controller 42.

Regarding claim **49**, the claimed processor arrangement being further adapted to write configuration data into the memory circuit in response to signals received from the packet-based communication system is met by the ability for the user to control the system controller 38 and reconfigure the system based on the system database storage 48, in an attempt to configure and route information on the packet-based communication system as necessary [col. 3, line 59 – col. 4, line 33].

Regarding claim **51**, the claimed user communication device including at least one of: a TV monitor, a printer, and computer is met by the system controller 38, having a display device 45, and CPU 43 [col. 3, lines 59-65].

Regarding claim **53**, the claimed user input means including a computer adapted to communicate on the Internet is met by the discussion of the connection via an ADSL line, which can provide Internet Connections [col. 2, lines 59-67].

Regarding claim **54**, the claimed packet-based communication system including at least one of: a cable modem, a wireless modem, a broadband modem, a telephone modem, a DSL, a T1 line, and a computer network is met by the modem coupled to the system controller as discussed in column 4, lines 9-15.

Regarding claim **55**, the claimed network interface system for interfacing different types of communication systems including a first user-based communication system and a packet-based communication system is met as follows:

- The claimed data memory circuit adapted to store data including packet-based data received via the packet-based communication system is only partially met by the Hamlin reference. Hamlin teaches system database storage 48 within the

system controller that holds information on the status of the distribution system 10. The database 48 stores information that is useful in configuring and controlling the system [col. 4, lines 16-27]. The Hamlin reference does not teach that external services data can be stored in a data memory circuit. The Ellis reference cures this deficiency in teaching a server 80, as the primary device in the home [Fig. 5 and paragraph 0074]. The server, as taught with reference to a separate embodiment, handles data distribution tasks and stores local information. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

- The claimed user communication device is met by the system controller 38 and remote controller 42, used to communicate with the system.
- The claimed processor arrangement adapted to write data-intercept select data into and read data-intercept select data from the memory circuit and to provide data for communicating with a user via the communication device, further adapted to process data received from, and exchange processed data between, the first user-based telephone communication system and the packet-based communication

system by configuring data between executable formats respectively proprietary to the telephone communication system and the packet-based communication system, and, in response to the data in the data memory circuit, also adapted to intercept information from the packet-based communication system and to store the intercepted information in the data memory circuit is met by the system controller 38 in conjunction with the converter 34 and the interface pods 44, which all serve to exchange processed data between the communication bus 36 and the external mass media providers. In the case of the Ellis reference, the input device 140 or the remote control 54 can be used to request information from the stored information at the server [paragraphs 0085-0086]. The server may be used to implement a client-server based interactive television program guide system. Also, the server 42 may be capable of handling text, graphics, and video [paragraph 0062]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale, in which users can utilize the input devices to request stored information, much like is done in a video on demand system which is commonplace in the art.

- The claimed user means for inputting message-retrieval control signals, wherein the processor arrangement responds to the message-retrieval control signals by displaying messages from the data memory circuit is met by the human input

device 55 and/or remote controller 42 for controlling the system controller 38, in an attempt to configure and re-route data according to the appliance and interface pod that the data will be viewable on.

Regarding claim **56**, the claimed user input means being at least one of: an IR key panel, a wall-mount unit for the system, a TV, a telephone, a computer, a videophone, a videocassette recorder, a wireless phone, a remote control, a modem, a voice recognition system, an Internet access device, a keypad, and a touch screen is met by the human input device 55 and/or remote controller 42.

Regarding claim **57**, the claimed processor arrangement being further adapted to write data-intercept select data into the memory circuit in response to signals received from the packet-based communication system is met by the ability for the user to control the system controller 38 and reconfigure the system based on the system database storage 48, in an attempt to configure and route information on the packet-based communication system as necessary [col. 3, line 59 – col. 4, line 33].

Regarding claim **58**, the claimed processor arrangement being further adapted to write data-intercept select data into the memory circuit in response to signals received from the input means is met by the system controller 38 in conjunction with the system database storage 48 and human input device 55, which serve to reconfigure data in the memory, allowing for routing of information and data as desired by the user.

Regarding claim **59**, the claimed user communication device including a TV monitor is met by the system controller 38, having a display device 45, and CPU 43 [col. 3, lines 59-65].

Regarding claim **63**, the claimed user communication device including a computer adapted to communicate on the Internet is met by the discussion of the connection via an ADSL line, which can provide Internet Connections [col. 2, lines 59-67].

Regarding claim **64**, the claimed packet-based communication system including at least one of: a cable modem, a wireless modem, a broadband modem, a telephone modem, a DSL, a T1 line, and a computer network is met by he modem coupled to the system controller as discussed in column 4, lines 9-15.

Regarding claim **65**, the claimed method for controlling communications data in a communications system at a user facility, the system having a NIU (Network Interface Unit), a user interface device, a plurality of telephony-based communications appliances, and a closed-loop bussing system is met as follows:

- The claimed step of using the user interface device and programming the NIU with configuration information for configuring received external-services data is met by the discussion of the system database storage 48, which serves to store configuration information for the mass media providers, the configuration information programmed by the user via the system controller 38 [col. 3, line 59 – col. 4, line 27].
- The claimed step of receiving external-services data at the NIU is met by the converter's 34 ability to receive information from mass media providers.
- The claimed step of "storing the received external services data in a memory circuit" is partially met by is met by converter 34, which serves to receive the external services data and send it to the bussing arrangement [col. 3, lines 3-13].

As noted above, the Hamlin reference does not discuss that the external services data can be stored on the converter. The Ellis reference, however, does teach that the in-home server 80 can store and serve video to users throughout the home via a bussing arrangement [paragraphs 0062 and 0074]. The configuration data stored in the system database storage 48, as discussed above, is used and taught by the Hamlin reference to monitor and control activity throughout the home [col. 4, lines 16-27]. It would have been clearly obvious to one of ordinary skill in the art at the time of the invention to implement the "converter/system controller" of Hamlin like the server taught by Ellis, in order to use a typical client-server architecture in the home for storing and serving video and other data to devices in the home, just as the typical server does on a much larger scale.

- The claimed step of configuring the stored external-services data from a first processor-readable data format into a different processor-readable format and transferring the configured data via the bussing arrangement to one of the telephony-based communications appliances is met by the communication bus 36, which serves to send the information (according to the system database storage 48) to each interface pad 44, after having received the media from the converter 34 [col. 3, lines 3-23].
- The claimed step of receiving the transferred external-services data at the one communications appliance is met by the reception of the data via the communication bus 36 at the interface pod 44 and eventually the receiving unit 46.

Regarding claim **66**, the claimed step of programming the data receiving unit with configuration information including programming routing information for routing the external-services data to particular ones of a plurality of communications devices is met by column 4, lines 9-33, wherein the ability to configure and route data appropriately throughout the system is disclosed.

Regarding claim **68**, the claimed plurality of communications devices including an Internet device, wherein the routing data includes the assignment of a particular Internet protocol address to the Internet device is met by the modem discussed in column 4, lines 9-15 and the ability for the routing data to contain interface pod address locations [col. 4, lines 9-27].

Regarding claim **70**, the claimed step of using the user interface device and programming the NIU with configuration information for external-services data including programming from an external-services provider location, wherein the configuration information includes data for controlling the type of external services that the NIU passes to the plurality of communications devices, and wherein configuring the stored external-services data from a first processor-readable data format into a different processor-readable format and transferring the configured data via the bussing arrangement to one of the telephony-based communications appliances includes configuring and transferring less than all of a set of external-services data to one of the telephony-based communications appliances based upon the controlled type of external services is met by the system controllers ability to configure the system database storage 48 with information received via a mass media signal [col. 4, lines 16-27].

Regarding claim **74**, the claimed external-services provider location programming the NIU with a packet-based access package is met by the discussion of the modem being used to program the system controller through a digital line protocol engine [col. 4, lines 9-15].

3. Claims **3**, **5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al., and further in view of Edson.

Referring to claims **3** and **5**, the combination of Hamlin and Ellis et al. teaches an arrangement for processing external-services data for use in a user facility, according to claim 1. The combination of Hamlin and Ellis et al. does not specifically teach that the NIU is configured to, response to the command signals, perform a non-frequency-based reconfiguration of external services data to configure the data into a new format for use by a particular one of the plurality of appliances, and further does not specifically teach that the bussing arrangement is a packet-based bussing arrangement that communicates data to different device son overlapping frequencies, and wherein the NIU communicatively couples the stored external services data to the plurality of appliances in the user facility by communicating the stored external services data on the bussing arrangement in a packetized format using data packets including a packet header that identifies a destination packet-based address to which the stored external services data is to be sent. Edson discloses a gateway providing an open software interface to control in-home communications and to enable in-home devices of various divergent technologies to selectively access external communications features (see Abstract). The gateway converts between different external communications mediums and common in-home communications mediums to provide data over the same bus to telephones, computers, appliances, alarm systems, and video and audio

entertainment systems within a unified home network (col. 4, l. 35-41 & Figs. 1, 2). Edson further discloses that the common in-home bus is a twisted pair bus (Fig. 1), and that the gateway includes a packet-switch router for routing the data to the appropriate device over the twisted pair bus (col. 8, l. 22-31; col. 9, l. 51-63; col. 10, l. 4-6, 66-67; & col. 11, l. 1-2, 46-65). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the converter and local network of Hamlin in the combination of Hamlin and Ellis et al. to include a router for packet-switching data over a twisted pair bus, such as that taught by Edson in order to provide a simple common interface usable by a wide range of systems and appliances within premises (Edson col. 2, l. 64-66).

4. Claims **7**, **22**, **29**, **31**, **37-41**, **67**, and **75** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al. and further in view of Edens et al.

Regarding claim **7**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 1. Neither Hamlin nor Ellis teaches that the user input device includes a telephone adapted to select NIU commands from a command menu programming into the NIU. Edens et al teach a system that detects a "ring" on an analog PSTN line and uses the "ring" to control the processing functionality of the system using DTMF dialing [col. 96, lines 36-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the ability to control the system over a telephone connection (as taught by Edens et al) in order to allow for remote controllable processing and programming within the system.

Regarding claim **22**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 21. Neither Hamlin nor Ellis teach that the configuration data includes telephone

data including at least one of: the telephone number assigned to the phone, call waiting options, caller ID options, answering options, forwarding options, message storage options, call blocking options, and call screening options, and where the programmable NIU uses the telephone data to communicatively couple stored external telephony services data to one of the plurality of appliances. Edens et al teach a system in which call configuration data, in the form of caller ID is delivered to the system [col. 96, lines 36-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to deliver caller ID information with the call in order to allow for easy viewing of caller identification and integration/use with pre-existing systems.

Regarding claim **29**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 1. Neither Hamlin nor Ellis teaches that the processor of the NIU is adapted to function as an answering machine for incoming telephony calls. Edens et al teach a system that has an integrated recorder for use as an answering machine for incoming phone calls [col. 107, line 60 – col. 108, line 2]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include answering machine functionality in order to allow for easy recording of telephone messages and integration/use with pre-existing systems and infrastructures for phone-call delivery.

Regarding claim **31**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 30. Neither Hamlin nor Ellis teach configuration information being received by the NIU in the form on DTMF tones, wherein the bussing arrangement includes a two-wire analog system, and wherein the user input device is adapted to send control signals to the NIU including DTMF tones to administratively control the NIU to configure external services data into a different format based upon a data format that can be processed by one of the plurality of

telephony-based appliances to which the configured external services data is to be communicated, as indicated via the DTMF tones. Edens et al teach a system that detects a "ring" on an analog PSTN line and uses the "ring" to control the processing functionality of the system using DTMF tones [col. 96, lines 36-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the ability to control the system over a telephone connection using DTMF tones (as taught by Edens et al) in order to allow for remote controllable processing and programming within the system using pre-existing DTMF functionality.

Regarding claim **37**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 1. Neither Hamlin nor Ellis teaches a plurality of appliances including a microphone adapted for use in an intercom system. Edens et al teach a system that utilizes a microphone for use as a monitoring/speakerphone/intercom system [col. 97, lines 7-15]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include an intercom system, in order to allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **38**, Hamlin, Ellis, and Edens et al teach all of that which is discussed above with regards to claim 37. Neither Hamlin nor Ellis teach the claimed monitoring device coupled and adapted to receive audio signals from the microphone and, responsive to detecting an audio signal above a threshold level, send an alert signal to a user via the NIU. Edens et al disclose a monitoring device, which utilizes two audio streams and a speakerphone system to alert another user of audio information [col. 97, lines 7-15]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include monitoring system, in order to

allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **39**, Hamlin, Ellis, and Edens et al teach all of that which is discussed above with regards to claim 38. Neither Hamlin nor Ellis teaches that the microphone is located near an infant, and the system is used to monitor the infant. Edens et al disclose the aforementioned system and even suggest its use as a baby monitor [col. 97, lines 7-15]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include monitoring system, in order to allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **40**, Hamlin, Ellis, and Edens et al teach all of that which is discussed above with regards to claim 39. Neither Hamlin nor Ellis teaches that the alert includes a page signal. Edens et al disclose the aforementioned system and even suggest its use as a baby monitor for alerting a parent of infant noises (via the speakerphone system) [col. 97, lines 7-15]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include monitoring system, in order to allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **41**, Hamlin, Ellis, and Edens et al teach all of that which is discussed above with regards to claim 38. Neither Hamlin nor Ellis teaches that the microphone is adapted to monitor noise for security monitoring. Edens et al disclose a monitoring system for monitoring noise within a household [col. 97, lines 7-15]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include monitoring system, in order to

allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **67**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 66. Neither Hamlin nor Ellis teaches that the routing data includes the assignment of a particular telephone number to the telephony device. Edens et al disclose a system for multi-line conferencing, which can utilize multiple telephones, each with their own telephone number [col. 96, lines 36-46]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include telephone phone number identification, in order to allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

Regarding claim **75**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 70. Neither Hamlin nor Ellis teaches that the external-services provider location programs the NIU with a telephony-based access package. In order for the telephones within the Edens et al system to interact with the outside world, an access package is provided through the POTS server 186 to take care of controlling Multiple Phones. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a telephone package system for use with multiple phones at one premises, in order to allow for a fully functional and easily interactable home automation system, in which telephone system integration was utilized to its fullest extent.

5. Claims **17-19**, **52**, and **60-62** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al. and further in view of Cohen et al.

Regarding claim **17**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 15. Neither Hamlin nor Ellis teaches that the first data form includes word processing data, and the second data form includes audio data. Cohen et al teach multiple data forms for use in a unified system (text and audio being two of those data forms) [see Abstract]. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the two data forms and conversion techniques from one to the other, in order to create a more comprehensive and consistent facility.

Regarding claim **18**, Hamlin, Ellis, and Cohen et al teach all of that which is discussed above with regards to claim 17. Neither Hamlin nor Ellis teaches that the first data form includes an email message, and the NIU is adapted to read and convert the email into an audio message. Cohen et al teach a conversion from e-mail message to voice/audio message using the text-to-speech technology. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the two data forms (e-mail and audio) and conversion techniques from one to the other, in order to create a more comprehensive and consistent facility.

Regarding claim **19**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 15. Neither Hamlin nor Ellis teaches that the first data form includes audio data, and the second data form includes word processing data. Cohen et al disclose a system that can convert among multiple forms of data (including text and voice). Figures 7 and 8 clearly indicate the transmissions from e-mail to text and from text to e-mail using appropriate engines. It would have been obvious to one of ordinary skill in the art at the time of the invention to

utilize the two data forms (e-mail and audio) and conversion techniques from one to the other, in order to create a more comprehensive and consistent facility.

Regarding claim **52**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 46. Neither Hamlin nor Ellis teaches a voice-generating unit adapted to produce prerecorded messages. Cohen et al disclose a system that can generate voice from text using a text-to-speech engine [col. 2, line 67 – col. 3, line 3] and store them within the system for use as prerecorded messages. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the text-to-speech engine in order to create a more comprehensive and consistent facility for managing messages of all types.

Regarding claim **60**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 55. Neither Hamlin nor Ellis teaches a voice-generating unit adapted to produce prerecorded messages. Cohen et al disclose a system that can generate voice from text using a text-to-speech engine [col. 2, line 67 – col. 3, line 3] and store them within the system for use as prerecorded messages. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the text-to-speech engine in order to create a more comprehensive and consistent facility for managing messages of all types.

Regarding claim **61**, Hamlin, Ellis, and Cohen et al disclose all of that which is discussed above with regards to claim 60. Neither Hamlin nor Ellis teaches that the voice-generating unit audibly produces the prerecorded messages over the user communication device. Cohen et al disclose that the message recipient has a single controllable point of contact where all messages can be scanned and/or viewed [Abstract]. This indicates that the prerecorded messages can be reproduced at the user communication device. It would have been obvious to one of ordinary

skill in the art at the time of the invention to utilize a voice-generating unit to audibly produce prerecorded messages, in order to create a more comprehensive and consistent facility for managing messages of all types.

Regarding claim **62**, Hamlin, Ellis, and Cohen et al disclose all of that which is discussed above with regards to claim 61, wherein the user communication device is configured for communicating a first audio signal in an audio data format, the signal being configured from a packet-based format into an audio data format by the processor arrangement (Figs. 3, 4). Neither Hamlin nor Ellis teaches that the prerecorded messages are audibly produced at a sound level over that of the first audio signal. Cohen et al disclose a system in which the user can select which audio signal to make audible [col. 2, lines 57-68]. To make an audio signal audible, it would have to be louder than the first audio signal. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a voice-generating unit to audibly produce prerecorded messages, in order to create a more comprehensive and consistent facility for managing messages of all types.

6. Claims **20** and **50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al. and further in view of Goldstein.

Regarding claim **20**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 1. Neither Hamlin nor Ellis teach the inclusion of a security code in the input device, wherein the NIU is further adapted to respond only to commands having the security code. Goldstein discloses a system in which the converter responds to only commands sent from a remote control with a specific identification number, for security purposes [col. 4, lines 57-65].

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a security code in the remote controller, in order to allow for tighter security and use by only those authorized users.

Regarding claim **50**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 46. Neither Hamlin nor Ellis teaches the reconfiguration of the processor arrangement in response to a user-provided security code. Goldstein discloses a system in which the converter responds to only commands sent from a remote control with a specific identification number, for security purposes [col. 4, lines 57-65]. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a security code in the remote controller, in order to allow for tighter security and use by only those authorized users.

7. Claims **69** and **71-73** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin in view of Ellis et al. and further in view of Lewis.

Regarding claim **69**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 66. Neither Hamlin nor Ellis teaches that the routing data includes assignment data that identifies the assignment of a particular television subscription package to the TV. Lewis discloses a system that utilizes an Account/Billing System 106 in order to deliver subscription packages to the televisions in the network. Column 3, lines 50-57 and column 6, lines 25-33, make it clear that the system being implemented utilizes some sort of subscription package to manage accounts and billing. It would have been obvious to one of ordinary skill in the art at the time of the invention to include subscription package details, in order to allow for

pay-per-view movies and more options for standard interactive television within the home system.

Regarding claim **71**, Hamlin and Ellis teach all of that which is discussed above with regards to claim 70. Neither Hamlin nor Ellis teaches that the external-services provider location programs the NIU with a television subscription package. Lewis discloses a system that utilizes an Account/Billing System 106 in order to deliver subscription packages to the televisions in the network. Column 3, lines 50-57 and column 6, lines 25-33, make it clear that the system being implemented utilizes some sort of subscription package to manage accounts and billing. It would have been obvious to one of ordinary skill in the art at the time of the invention to include subscription package details, in order to allow for pay-per-view movies and more options for standard interactive television within the home system.

Regarding claim **72**, Hamlin, Ellis, and Lewis teach all of that which is discussed above with regards to claim 71. Neither Hamlin nor Ellis teaches that the television subscription package includes a specified number of television sets that can use the television data. Lewis discloses a system that utilizes an Account/Billing System 106 and a Video Control System 104 in order to deliver subscription packages to multiple televisions in the network. Column 3, lines 50-57 and column 6, lines 25-33, make it clear that the system being implemented utilizes some sort of subscription package to manage accounts and billing. It would have been obvious to one of ordinary skill in the art at the time of the invention to include subscription package details, in order to allow for pay-per-view movies and more options for standard interactive television within the home system.

Regarding claim **73**, Hamlin, Ellis, and Lewis teach all of that which is discussed above with regards to claim 71. Neither Hamlin nor Ellis teaches that the television subscription package includes a pay-per-view event. Lewis discloses a system that utilizes an Account/Billing System 106 in order to deliver subscription packages to multiple televisions in the network. Column 3, lines 50-57 and column 6, lines 25-33, make it clear that the system being implemented utilizes some sort of subscription package to manage accounts and billing. It would have been obvious to one of ordinary skill in the art at the time of the invention to include subscription package details, in order to allow for pay-per-view movies and more options for standard interactive television within the home system.

(10) Response to Argument

Regarding claims **1-75**, the appellant argues that all of the prior art rejections rely upon an erroneous interpretation of a network interface device that simply passes data, as an end device that actually uses the data. The appellant further argues that the rejections rely upon an erroneous interpretation of frequency translation for routing purposes, with data configuration for actual use of the data. The examiner respectfully disagrees for the reasons articulated below.

Argument A: The Rejection Of Claims 1, 2, 4, 6, 8-16, 21, 23-28, 30, 32-36, 42-49, 51, 53-59, 63-66, 68, 70, and 74 Under 35 U.S.C. § 103(a) Over Hamlin In View Of Ellis Lacks Correspondence And Is Unmotivated.

Argument 1: The Cited Network Interface Pods Do Not Correspond To Claim Limitations Directed To End Devices As Asserted.

Regarding claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74**, the appellant argues that the § 103 rejections are based upon a misinterpretation of a network interface device that simply routes content using frequency-based content identification with an end device that actually uses the content. The appellant specifically argues that the pods of Hamlin retrieve content passed on a network based upon the frequency of the content and that this frequency translation has no bearing upon the ability of any device to use data, as claimed. The examiner respectfully disagrees. The examiner first notes that the end device or the pod can be interpreted to be the claimed appliance receiving the content. Hamlin discloses a home 12 that receives mass media signals 22 from outside the home by way of a variety of mediums, including television 24 26 30 and telephone 37 lines, amongst others (col. 2, l. 58-67; col. 3, l. 1-2; & Fig. 1). The distinct input media signals 22 are received by a converter 34, where the media signals 22 of various signal types are converted and transmitted along a communication bus 36 throughout the house 12. Hamlin further discloses converting mass media signals having different formats using a single, pre-existing network (col. 1, l. 5-8 & col. 2, l. 58-67). The user uses a remote controller 42 to direct any mass media signal to be converted, given a pod address, and distributed to any room in the house (col. 5, l. 46-50). The converter 34 receives different types of signals and performs protocol conversion and/or demodulation as necessary to produce signals in a common format (col. 3, l. 32-37). The appropriate interface pod 44 receives the common bus signal, interprets the pod address, and if the pod address matches that of the receiving interface pod, the interface pod converts and distributes the signal to its connected device (col. 4, l. 34-50). Since Hamlin discloses performing protocol conversion and/or demodulation on a received signal in order to produce signals in a common format, and further

discloses addressing the receiving pod, the examiner maintains that Hamlin teaches configuring data for use at an end device, as currently claimed.

The examiner acknowledges Appellant's argument that the conversion into a common-bus format has no bearing upon the ability of the end devices to actually use the data; however, the examiner respectfully disagrees. This conversion does have a bearing upon the ability of the end devices to actually use the data, since the network pods they are connected to listen for a particular frequency and ignore other frequencies (col. 4, l. 34-50). This conversion is necessary for the interface pod to receive and process the content and deliver the content to the end device, because the pod listens for that particular frequency and ignores other frequencies (col. 4, l. 34-50). Furthermore, this type of conversion seems consistent with Appellant's specification, which indicates that configuring the external-services data may include routing the data to a particular one of the plurality of appliances, enabling the use of a particular type of data to a limited number of appliances, or converting the data from a first form to a second form (p. 2, 3, paragraph 21 of published application US 2002/0054601). Appellant's specification also indicates that an appliance interface device is coupled between the appliance and the bussing arrangement and adapted to exchange data between the bussing arrangement and the appliance (p. 3, paragraph 27 of published application US 2002/0054601).

Further regarding claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74**, the appellant argues that the network interface pods do not and cannot correspond to claim limitations directed to an appliance that is configured to actually use the content or to applications in which the content is configured based upon capabilities of the end device that uses the content. The appellant specifically argues that the data routing effected via the pods do

not involve any processor-readable format or configuring data between executable formats. The examiner respectfully disagrees. As noted above, the frequency conversion and pod addressing is necessary for the interface pod and corresponding device to receive the content. Hamlin discloses that the interface pod transfers the converted frequency in a compatible format to the receiving unit (col. 6, l. 63-65). Whether it is converted back to the original format is unclear; however, the examiner finds this to be irrelevant, because the demodulation and protocol conversion of the data is necessary for it to be received by the end device. Since the data is used by the end device after being routed, the examiner interprets the routing as converting between processor-readable formats and between executable formats, as currently claimed. This appears consistent with Appellant's specification as well, which indicates that configuring the external-services data may include routing the data to a particular one of the plurality of appliances, enabling the use of a particular type of data to a limited number of appliances, or converting the data from a first form to a second form (p. 2, 3 paragraph 21 of published application US 2002/0054601). Appellant's specification also indicates that an appliance interface device is coupled between the appliance and the bussing arrangement and adapted to exchange data between the bussing arrangement and the appliance (p. 3, paragraph 27 of US 2002/0054601).

Argument 2: The Cited Bandwidth-Based Frequency Translation Fails To Correspond To Claim Limitations Directed To Data Configuration Specific To An End Device Or Otherwise.

Further regarding claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74**, the appellant argues that the frequency translation of Hamlin is not relevant to the use of routed content at any end device, thus failing to correspond to limitations directed to data

configuration including that involving configuration that is based upon capabilities of the particular one of the appliances. The Appellant specifically argues that, while the examiner is correct in that Hamlin requires that a particular frequency be used to communicate data to a particular pod, this communication frequency is irrelevant to the respective end device's ability to process the received data. The examiner respectfully disagrees. Hamlin discloses a home 12 that receives mass media signals 22 from outside the home by way of a variety of mediums, including television 24 26 30 and telephone 37 lines, amongst others (col. 2, l. 58-67; col. 3, l. 1-2; & Fig. 1). The distinct input media signals 22 are received by a converter 34, where the media signals 22 of various signal types are converted and transmitted along a communication bus 36 throughout the house 12. Hamlin further discloses converting mass media signals having different formats using a single, pre-existing network (col. 1, l. 5-8 & col. 2, l. 58-67). The user uses a remote controller 42 to direct any mass media signal to be converted, given a pod address, and distributed to any room in the house (col. 5, l. 46-50). The appropriate interface pod 44 receives the common bus signal, interprets the pod address, and if the pod address matches that of the receiving interface pod, the interface pod converts and distributes the signal to its connected device (col. 4, l. 34-50). Since Hamlin discloses performing protocol conversion and/or demodulation on a received signal in order to produce signals in a common format, and further discloses addressing the receiving pod, the examiner maintains that Hamlin teaches configuring data for use at an end device, as currently claimed. The examiner acknowledges Appellant's argument that the frequency-based communication in Hamlin involves communicating different data streams over different frequencies so that end devices can listen for that particular frequency and ignore other frequencies; however, this does have a bearing

upon the ability of the end devices to actually use the data, since they listen for that particular frequency and ignore other frequencies (col. 4, l. 34-50).

Argument 3: The Rejection Of Claim 16 Is Improper Because The Cited References Do Not Alter The Format Of Data As Claimed.

Further regarding claim **16**, the appellant argues that the rejection of claim 16 is improper, because the cited frequency translation has no bearing upon any end device's ability to use the data. The appellant further argues that the asserted ability of the converter 34 being able to convert from mass media signals or internet signals to a signal that is communicated on the bus is unsupported in the Hamlin reference and fails to provide any indication that the frequency conversion alters data into a non-packet-based format. The examiner respectfully disagrees. The examiner notes that the asserted functionality is supported by Hamlin in Figure 1, where it is shown that a converter 34 distributes multiple external signals over a common bus 36. The examiner notes that bus 36 is a coaxial cable (col. 5, l. 14-16). Hamlin further discloses that every interface pod 44 receives the signal, but only the interface pod 44 having the specified address responds (col. 6, l. 29-31). That is, the network of Hamlin communicates data to all devices, and only the devices having a pod address corresponding to that of the data is able to receive the data. This is distinctly different from a packet-switched network, where routers and packet headers determine which route data takes throughout the network. Hamlin discloses receiving stock reports from an internet banking system on telephone line 37 and distributing it to an end device over common-bus 36 after being converted at converter 33 (col. 5, l. 66-67 & col. 6, l. 7). Since the common-bus network 36 of Hamlin is not a packet-switched network, but

a frequency-based coaxial network, and further since internet content is packet-based, the examiner maintains that Hamlin teaches that the first data form includes packet-based data, and the second data form includes non-packet-based data, as currently claimed.

Argument 4: The Rejection Of Claims 2 And 4 Is Improper Because The Cited References Do Not Alter The Format Of Data As Claimed.

Regarding claims **2** and **4**, the appellant argues that the rejection of claims 2 and 4 is improper for reasons including those discussed above, as applicable to claim 1 and otherwise, and that the Hamlin reference is not concerned with any processor-readable format. The examiner respectfully disagrees for the reasons stated above. The appellant further argues that the Hamlin reference is concerned only with communications and carries out no processor-based configuration and that, therefore Hamlin fails to teach anything about configuring the external services data into a different processing format and into a different communications format. The examiner respectfully disagrees. As noted above, the examiner interprets the routing of data of Hamlin as teaching configuring external services data into a different processing format. As such, the conversion of Hamlin teaches both configuring the external services data into a different processing format and into a different communications format, as currently claimed.

Argument 5: The Record Has Failed To Establish Motivation To Modify The '964 Reference, In Erroneously Relying Upon An "Obvious To Try" Argument That Is Impermissible Where The Primary Reference Is Modified.

Further regarding claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74**, the appellant argues that the rejections are improper, because they are based upon a misinterpretation of the 2007 KSR Decision and the September, 2008 BPAI Decision in effectively asserting an "obvious to try" argument that both contradicts the KSR decision and more-recent law that clarifies the obviousness standard set forth in KSR. The appellant further argues that the examiner's attempt to address Appellant's traversals in this matter amount to various assertions that are unsupported by any evidence from the prior art and instead rely upon assertions that the examiner has set forth the rationale for motivation. The examiner respectfully disagrees. Firstly, the examiner did not rely on an "obvious to try" rationale in the rejection, but on a teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. The appellant further argues that nothing in the record establishes that the Hamlin reference would be modified to operate in accordance with the configured data as claimed and that Hamlin teaches away from modifying data as claimed, as it does not appear that the respective end devices could process data configured into a different format. The examiner respectfully disagrees. In the combination set forth in the Office Action, the examiner set forth the rationale for why one of ordinary skill in the art at the time that the invention was made would have been motivated to make the combination. Furthermore, in the 2007 BPAI decision of record, the BPAI affirmed the examiner's position that one of ordinary skill in the art would recognize that replacing multiple pieces of equipment with a client-server arrangement would result in a significant reduction in cost and complexity of Hamlin's system.

Argument 6: There Is No Motivation To Modify The '964 Reference Because The Cited References Teach Away From The Proposed Modification.

Still further regarding claims **1**, **2**, **4**, **6**, **8-16**, **21**, **23-28**, **30**, **32-36**, **42-49**, **51**, **53-59**, **63-66**, **68**, **70**, and **74**, the appellant argues that the cited references teach away from the Office Action's proposed combination. The examiner respectfully disagrees. The appellant specifically argues that the proposed modification of Hamlin to reconfigure data being sent into a different format would render the reference inoperable for its purpose to distribute multiple received signals having different formats to various locations within a structure without requiring unique reception equipment at each of the specific locations.

The examiner first notes that the Ellis et al. reference was not relied upon to teach reconfiguring data, but to teach storing content. The examiner fails to find any disclosure in either of the cited references suggesting against the combination. Furthermore, the examiner notes that the BPAI agrees with the examiner's combination, as noted in the 2007 BPAI decision.

Argument B: The Rejection Of Claims 3 and 5 Lack Correspondence And Motivation, and Fail To Identify The Relied-upon References.

Regarding claims **3** and **5**, the appellant argues that the rejection is improper for reasons stated above. The examiner respectfully disagrees for the reasons stated above. The appellant further argues that the rejection of claims 3 and 5 rely upon an "Obvious to Try" rationale in direct contradiction with relevant law and because the references teach away from the proposed combination. The examiner respectfully disagrees. Firstly, the examiner did not rely on an

"obvious to try" rationale in the rejection, but on a teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. Secondly, the examiner fails to find any disclosure in either of the cited references suggesting against the combination. While Hamlin discloses converting data into a common-bus frequency-based format for distribution to end devices within the house, Edson discloses a gateway converting between different external communications and a common in-home twisted pair bus and that the gateway includes a packet-switch router for routing the data to an appropriate device over the twisted pair bus (col. 8, l. 22-31; col. 9, l. 51-63; col. 10, l. 4-6, 66-67; & col. 11, l. 1-2, 46-65). The examiner fails to find any disclosure in either of the references suggesting why one of ordinary skill in the art would not recognize to modify the frequency-based distribution scheme of Hamlin to be a packet-switched distribution scheme, such as that taught by Edson.

The appellant further argues that the rejections of claims 3 and 5 are improper, because the Office Action does not specify a particular citation for the reference in the rejection. The appellant specifically argues that the examiner's response in the Advisory Action that relevant particular citations were referenced appears to be directed to cited portions in the reference, but that Appellant's traversals were directed to the fact that no citation was provided in the rejections for the Edson reference. The examiner respectfully disagrees. There is no requirement that the examiner cite the US patent number of the reference in the Office Action itself. As noted by the appellant, the examiner listed the patent number of the Edson reference in the PTO-892 form that accompanied the Office Action mailed 8/12/2009.

The appellant still further argues that the rejection of 3 is improper, because the cited references fail to disclose performing a non-frequency-based reconfiguration of external services data to configure the data into a new format for use by a particular appliance. The examiner respectfully disagrees. Edson discloses a gateway providing an open software interface to control in-home communications and to enable in-home devices of various divergent technologies to selectively access external communications features (see Abstract). The gateway converts between telephones, computers, appliances, alarm systems, and video and audio entertainment systems within a unified home network (col. 4, l. 35-41 & Figs. 1, 2). Edson further discloses that the common in-home bus is a twisted pair bus (Fig. 1), and that the gateway includes a packet-switch router for routing the data to the appropriate device over the twisted pair bus (col. 8, l. 22-31; col. 9, l. 51-63; col. 10, l. 4-6, 66-67; & col. 11, l. 1-2, 46-65). Since Edson transmits the content over a packet-switched network, the examiner maintains that the data conversion is "non-frequency-based," as currently claimed.

The appellant still further argues that the rejection of claim 5 is improper, because the cited references fail to disclose communicating stored external services data in a packetized format using data packets including a packet header and identifies a destination packet-based address to which the stored external services data is to be sent, where such a bussing arrangement communicates data on common frequencies. The examiner respectfully disagrees. As noted above, Edson discloses transmitting data over a common in-home packet-switched bus. The examiner notes that, in a packet-switched network, the messages are transmitted on a common frequency and each of the messages is individually addressed to an end device. This is

illustrated in Edson, where a MAC address controls address-related functions, such as sending address signals and recognizing address signals in received data signals (col. 11, l. 46-55).

Argument C: The Rejection Of Claims 7, 22, 29, 31, 37-41, 67 and 75 Lacks Correspondence And Motivation.

Regarding claims **7**, **22**, **29**, **31**, **37-41**, **67** and **75**, the appellant argues that the rejection is improper for the reasons discussed in Section A. The examiner respectfully disagrees for the reasons stated above in Section A. The appellant further argues that the rejection is improper, because the rejections rely upon the examiner's assertion as to what would have been obvious, which is devoid of any support from the prior art and that the examiner has provided no explanation of how Hamlin could be modified or how it could accordingly function. The examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

As noted in the Examiner's Answer mailed 8/09/2007, Hamlin discloses sending telephone signals over a common bus (col. 2, l. 67; col. 5, l. 66-67; col. 6, l. 1-7; & Fig. 1) and sending control signals over the bus (col. 6, l. 18-20). Hamlin is silent as to including DTMF-tone control. Edens et al. discloses a home network interconnecting a variety of home appliances (Fig. 1). Edens et al. further discloses transmitting DTMF tone control signals over the home

network (col. 96, l. 36-46). The examiner notes that DTMF signaling is commonly used for telephone signaling over telephone networks. Hamlin states an undesirability in the constant updating of equipment within the home to comply with new formats or configurations of signals (col. 1, l. 40-52). Edens et al. also states a desirability to create a network that is compatible with existing consumer electronic devices (col. 9, l. 39-43). As such, one of ordinary skill in the art at the time that the invention was made would have recognized the benefit of using DTMF tones in order to allow for remote controllable processing and programming within the system using pre-existing DTMF functionality. The examiner further notes that the BPAI agreed with the examiner's finding of fact and conclusion in the September 29, 2008 BPAI opinion (see p. 16 of BPAI opinion). The appellant further argues that it is unclear as to how a telephone connection could be made over the bus of Hamlin, as the bus requires frequency translation in order to route data and function accordingly. The examiner respectfully disagrees. Hamlin discloses receiving stock reports over a telephone line and converting it for transmission on the common-bus (col. 65, l. 66-67 & col. 6, l. 1-7). As such, Hamlin teaches a telephone connection over the coaxial bus.

Regarding claim **22**, the appellant specifically argues that the Office Action has failed to establish any rationale for displaying caller ID information, where nothing in the proposed combination provides any explanation as to how Hamlin's bus would route calls. The examiner respectfully disagrees. Hamlin discloses converting mass media signals having different formats using a single, pre-existing network (col. 1, l. 5-8 & col. 2, l. 58-67). Hamlin discloses that one of these media signals is received from a telephone line (col. 2, l. 67). A user of an end device can access a stock report via telephone line 37. The system controller dials into the banking

internet, retrieves the current stock reports, and then transmits the visual display of the reports over the bus 36 to the pod of the family room, where they are displayed by a TV (col. 5, l. 66-67 & col. 6, l. 1-7). Thus, Hamlin teaches how to route telephone data over the communication bus 36.

Argument D: The Rejection Of Claims 17-19, 52 and 60-62 Lacks Correspondence And Motivation.

Referring to claims **17-19**, **52** and **60-62**, the appellant argues that the rejection is improper for reasons including those discussed in Section A above. The examiner respectfully disagrees for the reasons stated above in Section A. The appellant further argues that the rejection is improper, because the rejections rely upon the examiner's assertion as to what would have been obvious, which is devoid of any support from the prior art. The examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

As noted in the Examiner's Answer mailed 8/09/2007, Hamlin discloses an in-home computer for handling information distribution. Hamlin is silent as to converting word processing data into audio data. Cohen et al. discloses a unified messaging system that can convert text messages into audio messages. Cohen et al. further states that this is useful in

providing information to retrieval devices with technological limitations, such as a conventional voice telephone (col. 2, l. 57-67 & col. 3, l. 1-3). One of ordinary skill in the art would have recognized the benefit of modifying Hamlin to provide a comprehensive and consistent facility for distributing information to a variety of home appliances, such as that taught by Cohen et al. The examiner further notes that the BPAI agreed with the examiner's finding of fact and conclusion in the September 29, 2008 BPAI opinion (see p. 18 of BPAI opinion).

Argument E: The Rejection Of Claims 20 and 50 Lacks Correspondence And Motivation.

Regarding claims **20** and **50**, the appellant argues that the rejection is improper for reasons including those discussed in Section A above. The examiner respectfully disagrees for the reasons stated above in Section A. The appellant further argues that the rejection is further improper, because these rejections rely upon assertions as to what would have been obvious that are devoid of any support from the prior art. The examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

As noted in the Examiner's Answer mailed 8/09/2007, Hamlin discloses a remote controller 42 that directs mass media signals 22 to be distributed to rooms 14, 16, 18, 20 in house 12 in response to user commands (col. 5, l. 46-50). Hamlin is silent as to the use of security

provisions within the remote controller. Goldstein discloses a universal remote control for controlling a variety of consumer products (col. 3, l. 14-17). Goldstein further states that it is desirable to add security provisions to remote control devices, so that they cannot be used on another cable system without authority of the cable system and further so that the owner of the devices would be protected from unauthorized use on such additional cable systems (col. 3, l. 1-11). One of ordinary skill in the art at the time that the invention was made would have recognized the benefit of modifying the remote controller of Hamlin to use a security code in order to allow for tighter security and use by only those authorized users, such as that taught by Goldstein. The examiner further notes that the BPAI agreed with the examiner's finding of fact and conclusion in the September 29, 2008 BPAI opinion (see p. 14 of BPAI opinion).

Argument F: The Rejection Of Claims 69 and 71-73 Lacks Correspondence And Motivation.

Regarding claims **69** and **71-73**, the appellant argues that the rejection is improper for reasons including those discussed in Section A above. The examiner respectfully disagrees for the reasons stated above in Section A. The appellant further argues that the rejection is further improper, because the rejections rely upon the examiner's assertion as to what would have been obvious involving television subscription packages within a home, but fails to provide any explanation as to how the relevant assignment of a subscription package would be applicable in the Hamlin reference. The examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so

found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

As noted in the Examiner's Answer mailed 8/09/2007, Hamlin discloses a communication bus that receives a variety of television signals and communicates them to televisions throughout the home (col. 5, l. 46-54 & Fig. 1). Hamlin is silent as to the routing data including the assignment of a particular television subscription package to a TV. Lewis discloses a closed cable network within a building that receives program source material from a pay per view system and directs the pay per view material to a room that ordered the material (col. 6, l. 25-33 & col. 8, l. 42-48). Lewis further states a need within the art for a system that allows a user to interactively access information outside of a network without requiring additional equipment within each user location (col. 1, l. 29-36). One of ordinary skill in the art at the time that the invention was made would have recognized the benefit of modifying the combination of Hamlin and Ellis et al. to include sending pay per view data to the television equipment of a requesting room, such as that taught by Lewis in order to allow for access to pay-per-view movies and other options without requiring additional equipment within the user location, such as that taught by Lewis. The examiner further notes that the BPAI agreed with the examiner's finding of fact and conclusion in the September 29, 2008 BPAI opinion (see p. 21 of BPAI opinion).

Argument G: The § 112(1) Rejection Of Claims 3 and 5 Is Improper And Should Be Reversed.

Regarding claims **3** and **5**, the appellant argues that the rejections are based upon an erroneous assertion that the specification must disclose word-for-word correspondence. The examiner respectfully disagrees.

Regarding claim **3**, the appellant argues that the specification describes multiple example embodiments involving a configuration that is not frequency based, such as by converting the data from a first form to a second form, such as from analog to digital or packet-based to non-packet-based (see page 7, lines 21-22 of Appellant's specification). The appellant asserts that converting data from analog to digital or from packet-based to non-packet-based are clear examples of non-frequency-based data conversion. The examiner respectfully disagrees. Despite the fact that the subject matter of the claim need not be described literally in order for the disclosure to satisfy the description requirement, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention now claimed. See MPEP 2163.01. Here, the specification never indicates any non-frequency-based conversion. Despite the fact that analog to digital or packet-based to non-packet-based is disclosed, there may still be frequency-based conversion taking place without explicit disclosure stating that it is not taking place. In fact, the following paragraph of Appellant's published specification (paragraph 22 of published application US 2002/0054601) states that the information is provided by the packet-based system to selected channels of the first user-based system (paragraph 22). The examiner maintains that the specification fails to provide support for the recited claim language, as currently claimed.

Regarding claim **5**, the appellant argues that the specification clearly recites packet-based busses, such as a user bus (p. 10, lines 17-24 of Appellant's specification) and that such packet-

based communications use a packet header to route data. The examiner respectfully disagrees. The section of the specification cited by the appellant states that Internet data can be received over a coaxial cable, but fails to recite communicating data in a packetized format including a packet header. The system could just as easily work by converting the Internet data to a format not containing a packet header prior to sending the data over the coaxial network. As such, the examiner maintains that the specification fails to provide support for the recited claim language, as currently claimed.

(11) Related Proceeding(s) Appendix

The examiner notes that this application was previously appealed and decided by the BPAI on September 29, 2008.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael Van Handel/

Examiner, Art Unit 2424

Michael Van Handel

Conferees:

Chris Kelley

/Christopher Kelley/

Supervisory Patent Examiner, Art Unit 2424

Joseph Ustaris

/Joseph G Ustaris/

Primary Examiner, Art Unit 2424